AMENDMENTS TO THE CLAIMS

1.(Currently Amended)   A system for despreading a spread spectrum signal using a PN code, wherein the spread spectrum signal comprises a plurality of signal samples, each signal sample having an in-phase portion and a quadrature-phase portion, and wherein the PN code comprises a plurality of chips, the system comprising:

a switch for selecting one of the in-phase portion and the quadrature-phase portion;

a first multiplier coupled to the switch for multiplying the selected portion of one of the plurality of signal samples with one <u>PN code chip</u> of the plurality of PN code chips to obtain a first product<u>, where the selected portion of one of the plurality of signal samples is selected by an odd-even switch and is either an even portion or an odd portion of the selected portion of the second of the plurality of signal samples</u>;

a second multiplier coupled to the switch for multiplying the selected portion of a second of the plurality of signal samples with the one PN code chip ~~of the plurality of PN code chips~~ to obtain a second product, wherein the second of the plurality of signal samples succeeds the one of the plurality of signal samples<u>, where the selected portion of the second of the plurality of signal samples is selected by the odd-even switch and is either an even portion or an odd portion of the selected portion of the second of the plurality of signal samples</u>; and

first adder coupled to the first multiplier and the second multiplier for adding the first product with the second product to obtain a first sum.

2.(Canceled)

3.(Currently Amended)   The system of claim 1, further comprising:

a third multiplier coupled to ~~the~~ a second switch for multiplying the selected portion of a third signal sample ~~of the plurality of signal samples~~ with a second PN code chip ~~of the plurality of PN code chips~~, wherein the third signal sample ~~of the plurality of signal samples~~ succeeds the second ~~of the plurality of~~ signal samples and wherein the second ~~of the plurality of~~ PN code chip[[s]] succeeds the one ~~of the plurality of~~ PN code chip[[s]] and the selected portion is of the third signal sample is selected with an second odd-even switch and is either a even portion or a second odd portion of the third signal sample;

a fourth multiplier coupled to the second switch for multiplying the selected portion of a fourth signal sample ~~of the plurality of signal samples~~ with the second PN code chip ~~stage selected by the other odd-even switch second of the plurality of PN code chips~~ to obtain a fourth product, wherein the selected portion of the fourth ~~of the plurality of~~ signal samples succeeds the third signal sample and the selected portion is of the forth signal sample is selected with the second odd-even switch and is either an even portion or an odd portion of the of the fourth signal sample ~~of the plurality of signal samples~~;

a second adder coupled to the third multiplier and the fourth multiplier for adding the third product with the fourth product to obtain a second sum; and

a third adder coupled to the first adder and the second adder for adding the first sum with the second sum.

4.(Canceled).

5.(Canceled).

6.(Currently amended).   A method for despreading a spread spectrum signal using a PN code, wherein the spread spectrum signal comprises a plurality of signal samples, each signal sample having an in-phase portion and a quadrature-phase portion, and wherein the PN code comprises a plurality of chips, the method comprising:

selecting one of the in-phase portion and the quadrature-phase portion; and

multiplying the selected portion of one of the plurality of signal samples with one of the plurality of PN code chips to obtain a first product, where the selected portion is either an odd selected portion or an even selected portion as selected by an odd-even switch; and

multiplying the selected portion of a second signal sample of the plurality of signal samples with the one of the plurality of PN stage code chips to obtain a second product, wherein the second of the plurality of signal samples succeeds the one of the plurality of signal samples, , where the selected portion is either an odd selected portion or an even selected portion as selected by the odd-even switch; and

adding the first product with the second product to obtain a first sum.

7.(Canceled).

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8. (Currently amended).   The method of claim 6, further comprising:

multiplying the selected portion of a third signal sample of the plurality of signal samples with a second from of the plurality of PN code chips to obtain a third product, wherein the third of the plurality of signal samples succeeds the second of the plurality of signal samples and wherein the second of the plurality of PN code chips succeeds the one of the plurality of PN code chips and the selected portion is either an odd selected portion or an even selected portion of the third signal sample as selected by a second odd-even switch;

multiplying the selected portion of a fourth signal sample of the plurality of signal samples with the second of the plurality of PN code chips to obtain a fourth product, wherein the fourth of the plurality of signal samples succeeds the third of the plurality of signal samples and the selected portion is either an odd selected portion or an even selected portion of the fourth signal sample as selected by the second odd-even switch;

adding the third product with the fourth product to obtain a second sum; and

adding the first sum with the second sum.

9 (Canceled).

10 (Currently amended).   The method of claim 6, further comprising:

multiplying the selected portion of a third signal sample of the plurality of signal samples with the second PN code chip of the plurality of PN code chips to obtain a third product, wherein the third of the plurality of signal samples succeeds the second of the plurality of signal samples;

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multiplying the selected portion of a fourth of the plurality of signal samples with

a third <u>PN code chip</u> of the plurality of PN code chips the second PN chip stage to

obtain a fourth product, wherein the fourth of the plurality of signal samples succeeds

the third of the plurality of signal samples and wherein the third of the plurality of PN

code chips succeeds the second of the plurality of PN code chips;

adding the third product with the fourth product to obtain a second sum; and

adding the first sum with the second sum.

11-15(Canceled).

16 (Currently amended). A computer readable medium having software for

despreading a spread spectrum signal using a PN code, wherein the spread spectrum

signal comprises a plurality of signal samples, each signal sample having an in-phase

portion and a quadrature-phase portion, and wherein the PN code comprises a plurality of

chips, the computer readable medium comprising:

means for selecting one of the in-phase portion and the quadrature-phase portion;

means for selecting one of an even PN code stage and odd PN code stage from

one of the plurality of PN code chips;

means for multiplying the selected portion of one of the plurality of signal

samples with one of the <u>selected even PN code state and odd PN code stage</u> ~~plurality of~~

~~PN code chips~~ to obtain a first product; and

means for multiplying the selected portion of a second of the plurality of signal

samples with the one of the plurality of PN code chips to obtain a second product,

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wherein the second of the plurality of signal samples succeeds the one of the plurality of

signal samples; and

means for adding the first product with the second product to obtain a first sum.

17 (Canceled).

18 (Currently amended).   The computer readable medium of claim 16, further

comprising:

means for multiplying the selected portion of a third of the plurality of signal

samples with a second of the plurality of PN code chips to obtain a third product,

wherein the third signal sample of the plurality of signal sample samples succeeds the

second signal sample of the plurality of signal samples and wherein the second PN

code chip of the plurality of PN code chips succeeds the one of the plurality of PN

code chips;

means for multiplying the selected portion of a fourth signal sample of the

plurality of signal samples with the second code chip of the plurality of PN code

chips to obtain a fourth product, wherein the fourth signal sample of the plurality of

signal samples succeeds the third of the plurality of signal samples sample;

means for adding the third product with the fourth product to obtain a second

sum; and

means for adding the first sum with the second sum.

19 (Canceled).

20 (Currently amended).   The computer readable medium of claim 16, further

comprising:

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means for multiplying the selected portion of a third ~~signal sample~~ of the plurality of signal samples with the second ~~PN code chip~~ of the plurality of PN code chips to obtain a third product, wherein the third ~~signal sample~~ ~~of the plurality of signal samples~~ succeeds the second ~~signal sample~~ ~~of the plurality of signal samples~~;

means for multiplying the selected portion of a fourth ~~signal sample~~ of the plurality of signal samples with a third ~~PN code chip~~ of the plurality of PN code chips to obtain a fourth product, wherein the fourth ~~signal sample~~ ~~of the plurality of signal samples~~ succeeds the third ~~signal sample~~ ~~of the plurality of signal samples~~ and ~~wherein~~ the third ~~PN code chip~~ ~~of the plurality of PN code chips~~ succeeds the second ~~of the plurality of~~ PN code ~~chips~~ ~~chip~~;

means for adding the third product with the fourth product to obtain a second sum; and

means for adding the first sum with the second sum.

21 (Previously presented).   A system for despreading a spread spectrum signal using a PN code, wherein the spread spectrum signal comprises a plurality of signal sample pairs, each pair comprising an even signal sample and an odd signal sample, each signal sample having an in-phase portion and a quadrature-phase portion, and wherein the PN code comprises a plurality of chips, the system comprising:

a first switch for selecting one of the in-phase portion and the quadrature-phase portion;

a second switch coupled to the first switch for selecting one of the even sample and the odd sample; and

a first multiplier coupled to the second switch for multiplying the selected portion of the selected sample of one of the plurality of signal sample pairs with one of the plurality of PN code chips to obtain a first product.

22 (Original). The system of claim 21, further comprising:

a second multiplier coupled to the second switch for multiplying the selected portion of the selected sample of a second of the plurality of signal sample pairs with a second of the plurality of PN code chips to obtain a second product, wherein the second of the plurality of signal sample pairs succeeds the one of the plurality of signal sample pairs, and the second of the plurality of PN code chips succeeds the one of the plurality of PN code chips; and

an adder coupled to the first multiplier and the second multiplier for adding the first product with the second product to obtain a first sum.

23 (Canceled).

24 (Canceled).

25 (Previously presented). A method for despreading a spread spectrum signal using a PN code, wherein the spread spectrum signal comprises a plurality of signal sample pairs, each pair comprising an even signal sample and an odd signal sample, each signal sample having an in-phase portion and a quadrature-phase portion, and wherein the PN code comprises a plurality of chips, the method comprising:

selecting one of the in-phase portion and the quadrature-phase portion;

selecting one of the even sample and the odd sample; and

multiplying the selected portion of the selected sample of one of the plurality of signal sample pairs with one of the plurality of PN code chips to obtain a first product.

26 (Original). The method of claim 25, further comprising:

multiplying the selected portion of the selected sample of a second of the plurality of signal sample pairs with a second of the plurality of PN code chips to obtain a second product, wherein the second of the plurality of signal sample pairs succeeds the one of the plurality of signal sample pairs, and the second of the plurality of PN code chips succeeds the one of the plurality of PN code chips; and

adding the first product with the second product to obtain a first sum.

27-32 (Canceled).

33 (Previously presented). A computer readable medium having software for despreading a spread spectrum signal using a PN code, wherein the spread spectrum signal comprises a plurality of signal sample pairs, each pair comprising an even signal sample and an odd signal sample, each signal sample having an in-phase portion and a quadrature-portion, and wherein the PN code comprises a plurality of chips, the computer readable medium comprising:

means for selecting one of the in-phase portion and the quadrature-phase portion;

means for selecting one of the even sample and the odd sample; and

means for multiplying the selected portion of the selected sample of one of the plurality of signal sample pairs with one of the plurality of PN code chips to obtain a first product.

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34 (Original). The computer readable medium of claim 33, further comprising:

means for multiplying the selected portion of the selected sample of a second of the plurality of signal sample pairs with a second of the plurality of PN code chips to obtain a second product, wherein the second of the plurality of signal sample pairs succeeds the one of the plurality of signal sample pairs, and the second of the plurality of PN code chips succeeds the one of the plurality of PN code chips; and

means for adding the first product with the second product to obtain a first sum.

35-65 (Canceled).